

*Please provide the following information, and submit to the NOAA DM Plan Repository.*

**Reference to Master DM Plan (if applicable)**

*As stated in Section IV, Requirement 1.3, DM Plans may be hierarchical. If this DM Plan inherits provisions from a higher-level DM Plan already submitted to the Repository, then this more-specific Plan only needs to provide information that differs from what was provided in the Master DM Plan.*

URL of higher-level DM Plan (if any) as submitted to DM Plan Repository:

**1. General Description of Data to be Managed****1.1. Name of the Data, data collection Project, or data-producing Program:**

2005 US Army Corps of Engineers (USACE) National Coastal Mapping Program Topo/Bathy Lidar: Delaware, Maryland, New Jersey, New York, North Carolina and Virginia

**1.2. Summary description of the data:**

The data contained in these files are hydrographic and topographic data collected by the SHOALS-1000T system

along the Delaware, Maryland, New Jersey, New York, North Carolina and Virginia coastline as part of the National

Coastal Mapping Program.

The lidar data for DE, MD, NJ and VA was collected from 20050824-20050908.

The lidar data for NY and NC was collected from 20051001-20051126.

Original contact information:

Contact Org: NOAA Office for Coastal Management

Phone: 843-740-1202

Email: coastal.info@noaa.gov

**1.3. Is this a one-time data collection, or an ongoing series of measurements?**

One-time data collection

**1.4. Actual or planned temporal coverage of the data:**

2005-08-24 to 2005-11-26

**1.5. Actual or planned geographic coverage of the data:**

W: -78.55, E: -71.86, N: 41.07, S: 33.84

**1.6. Type(s) of data:**

*(e.g., digital numeric data, imagery, photographs, video, audio, database, tabular data, etc.)*

**1.7. Data collection method(s):**

*(e.g., satellite, airplane, unmanned aerial system, radar, weather station, moored buoy, research vessel, autonomous underwater vehicle, animal tagging, manual surveys, enforcement activities, numerical model, etc.)*

**1.8. If data are from a NOAA Observing System of Record, indicate name of system:****1.8.1. If data are from another observing system, please specify:****2. Point of Contact for this Data Management Plan (author or maintainer)****2.1. Name:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.2. Title:**

Metadata Contact

**2.3. Affiliation or facility:**

NOAA Office for Coastal Management (NOAA/OCM)

**2.4. E-mail address:**

coastal.info@noaa.gov

**2.5. Phone number:**

(843) 740-1202

**3. Responsible Party for Data Management**

*Program Managers, or their designee, shall be responsible for assuring the proper management of the data produced by their Program. Please indicate the responsible party below.*

**3.1. Name:****3.2. Title:**

Data Steward

**4. Resources**

*Programs must identify resources within their own budget for managing the data they produce.*

**4.1. Have resources for management of these data been identified?****4.2. Approximate percentage of the budget for these data devoted to data management (specify percentage or "unknown"):****5. Data Lineage and Quality**

*NOAA has issued Information Quality Guidelines for ensuring and maximizing the quality, objectivity, utility, and integrity of information which it disseminates.*

### **5.1. Processing workflow of the data from collection or acquisition to making it publicly accessible**

*(describe or provide URL of description):*

Process Steps:

- 2006-04-06 00:00:00 - FOR DE,MD,NJ,VA DATA: These data were collected using a SHOALS-1000T system. It is owned and operated by Fugro Pelagos performing contract survey services for the US Army Corps of Engineers. The system collects topographic lidar data at 10kHz and hydrographic data at 1kHz. The system also collects RGB imagery at 1Hz. Aircraft position, velocity and acceleration information are collected through a combination of Novatel and POS A/V equipment. Raw data are collected and transferred to the office for downloading and processing in SHOALS GCS software. The data were collected and processed in geographic coordinates and ellipsoid heights. The positions are provided relative to NAD83 in decimal degrees of longitude and latitude. The heights were converted from ellipsoid to geoid heights (NAVD88) using NGS' Geoid03 model file "g2003u08.bin" with the results in meters. GPS data are processed using POSpac software and the results are combined with the lidar data to produce 3-D positions for each lidar shot. These data are edited using Fledermaus software where anomalous data are removed from the dataset. The edited data are unloaded from SHOALS GCS, converted from ellipsoid to orthometric heights, based on the GEOID03 model, and split into geographic tiles covering approximately 5km each. The process date for this data set is 20060406, which is listed below as the process date for this process step. FOR NY,NC DATA: Acquisition Data were acquired using a SHOALS-1000T. Sensor orientation was measured using a POS AV 410, while images were acquired at 1Hz using a Duncantech DT4000 digital camera. Prior to survey, PDOP was checked and missions planned to avoid PDOP greater than 3.5. During survey, the plane was always within 30km of a GPS ground control point, to provide a good quality position solution. Final positions were determined using a post-processed inertially aided Kinematic GPS (KGPS) solution. GPS ground control data were acquired at 1Hz. Data received by the airborne system were continually monitored for data quality during acquisition operations. Display windows showed coverage and information about the system status. In addition, center waveforms at 5Hz were shown. All of this information allowed the airborne operator to assess the quality of data being collected. Data were processed in the field to verify coverage and data quality. Data were processed using the SHOALS Ground Control System (GCS). The GCS includes links to Applanix POSpac software for GPS and inertial processing, and IVS Fledermaus software for data visualization, 3D editing and tie-line analysis. Data were processed in NAD83 horizontal and vertical datum. Data were later converted to the NAVD88 vertical datum using the GEOID03 model. Fugro in-house utilities were used to extract XYZ data from the native LIDAR files and split the data in to pre-defined boxes, each covering approximately 5km of shoreline. ASCII files include Longitude Latitude Elevation Date Time Intensity (

Topo) or Depth Confidence (Hydro). The process date for this data set is 20060422.

- 2006-08-01 00:00:00 - The NOAA Office for Coastal Management (OCM) received files in ascii format. The files contained lidar intensity and elevation measurements. OCM performed the following processing on the data to make it available within the Lidar Data Retrieval Tool (LDART): 1. Each hydro/topo last return ascii file was converted to las files. Default values for which there is no corresponding input were assigned as follows for each las elevation data record: intensity = 0, retn = 1, nret = 1, class = 0 2. The las files were sorted by latitude and the las header fields were updated. 3. The data were converted to ellipsoid.
- 2014-01-09 00:00:00 - Times had originally been stored as POSIX seconds when converted to LAS. This was switched to adjusted GPS time (GPS seconds - 1e9) to conform to the LAS 1.2 standard.

**5.1.1. If data at different stages of the workflow, or products derived from these data, are subject to a separate data management plan, provide reference to other plan:**

**5.2. Quality control procedures employed (describe or provide URL of description):**

## **6. Data Documentation**

*The EDMC Data Documentation Procedural Directive requires that NOAA data be well documented, specifies the use of ISO 19115 and related standards for documentation of new data, and provides links to resources and tools for metadata creation and validation.*

**6.1. Does metadata comply with EDMC Data Documentation directive?**

No

**6.1.1. If metadata are non-existent or non-compliant, please explain:**

Missing/invalid information:

- 1.6. Type(s) of data
- 1.7. Data collection method(s)
- 3.1. Responsible Party for Data Management
- 4.1. Have resources for management of these data been identified?
- 4.2. Approximate percentage of the budget for these data devoted to data management
- 5.2. Quality control procedures employed
- 7.1. Do these data comply with the Data Access directive?
  - 7.1.1. If data are not available or has limitations, has a Waiver been filed?
  - 7.1.2. If there are limitations to data access, describe how data are protected
- 7.4. Approximate delay between data collection and dissemination
- 8.1. Actual or planned long-term data archive location
- 8.3. Approximate delay between data collection and submission to an archive facility
- 8.4. How will the data be protected from accidental or malicious modification or

deletion prior to receipt by the archive?

**6.2. Name of organization or facility providing metadata hosting:**

NMFS Office of Science and Technology

**6.2.1. If service is needed for metadata hosting, please indicate:**

**6.3. URL of metadata folder or data catalog, if known:**

<https://www.fisheries.noaa.gov/inport/item/50053>

**6.4. Process for producing and maintaining metadata**

*(describe or provide URL of description):*

Metadata produced and maintained in accordance with the NOAA Data Documentation Procedural Directive: [https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC\\_PD-Data\\_Documentation\\_v1.pdf](https://nosc.noaa.gov/EDMC/DAARWG/docs/EDMC_PD-Data_Documentation_v1.pdf)

**7. Data Access**

*NAO 212-15 states that access to environmental data may only be restricted when distribution is explicitly limited by law, regulation, policy (such as those applicable to personally identifiable information or protected critical infrastructure information or proprietary trade information) or by security requirements. The EDMC Data Access Procedural Directive contains specific guidance, recommends the use of open-standard, interoperable, non-proprietary web services, provides information about resources and tools to enable data access, and includes a Waiver to be submitted to justify any approach other than full, unrestricted public access.*

**7.1. Do these data comply with the Data Access directive?**

**7.1.1. If the data are not to be made available to the public at all, or with limitations, has a Waiver (Appendix A of Data Access directive) been filed?**

**7.1.2. If there are limitations to public data access, describe how data are protected from unauthorized access or disclosure:**

**7.2. Name of organization of facility providing data access:**

NOAA Office for Coastal Management (NOAA/OCM)

**7.2.1. If data hosting service is needed, please indicate:**

**7.2.2. URL of data access service, if known:**

<https://coast.noaa.gov/dataviewer/#/lidar/search/where:ID=33>  
[https://coast.noaa.gov/htdata/lidar4\\_z/geoid18/data/33](https://coast.noaa.gov/htdata/lidar4_z/geoid18/data/33)

**7.3. Data access methods or services offered:**

This data can be obtained on-line at the following URL:

<https://coast.noaa.gov/ldart>

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#### **7.4. Approximate delay between data collection and dissemination:**

**7.4.1. If delay is longer than latency of automated processing, indicate under what authority data access is delayed:**

### **8. Data Preservation and Protection**

*The NOAA Procedure for Scientific Records Appraisal and Archive Approval describes how to identify, appraise and decide what scientific records are to be preserved in a NOAA archive.*

#### **8.1. Actual or planned long-term data archive location:**

*(Specify NCEI-MD, NCEI-CO, NCEI-NC, NCEI-MS, World Data Center (WDC) facility, Other, To Be Determined, Unable to Archive, or No Archiving Intended)*

##### **8.1.1. If World Data Center or Other, specify:**

##### **8.1.2. If To Be Determined, Unable to Archive or No Archiving Intended, explain:**

#### **8.2. Data storage facility prior to being sent to an archive facility (if any):**

Office for Coastal Management - Charleston, SC

#### **8.3. Approximate delay between data collection and submission to an archive facility:**

#### **8.4. How will the data be protected from accidental or malicious modification or deletion prior to receipt by the archive?**

*Discuss data back-up, disaster recovery/contingency planning, and off-site data storage relevant to the data collection*

### **9. Additional Line Office or Staff Office Questions**

*Line and Staff Offices may extend this template by inserting additional questions in this section.*